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COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
313 N. Figueroa, Los Angeles, CA 90012
(213) 240-8101

June 27, 2005

TO: Each Supervisor

FROM: Thomas L. Garthwaite, M.D.
Director and Chief Medical Officer

SUBJECT: **REVISED APPROACH FOR DHS ENTERPRISE PHARMACY INFORMATION SYSTEM (RXIS)**

This is to provide you with an update on the Department of Health Services (DHS) Enterprise Pharmacy Information System (RXIS) project. RXIS will provide DHS facilities with a modern, commercial pharmacy information system with advanced patient safety, workflow, and inventory management functionality. DHS will implement the system in all its pharmacies, standardizing medication management processes and associated data for improved efficiency, accountability, regulatory compliance, and patient safety. As detailed below, DHS is accelerating implementation of the system at the facilities where the need is most urgent.

Background

DHS currently has two legacy pharmacy information systems, QuadraMed's discontinued Sigma Pharmacy System and the Pharmacy Stock Control and Audit System (PSCAS), developed and hosted by the Internal Services Department (ISD) for DHS and the Sheriff's Department. There are many business imperatives for replacing both legacy systems. Among the most pressing needs are improved system reliability and improved patient safety. Effective medication management and national patient safety intiatives require a reliable, stable, modern pharmacy information system that is maintained by a vendor and is capable of meeting all new national and local guidelines and regulations. Our legacy systems cannot provide the reliability and functionality required to meet DHS' current and future requirements.

On March 12, 2004, DHS notified your Board of its intent to enter into contract negotiations with General Electric Healthcare (GE) for procurement and implementation of GE's Centricity Pharmacy information system as the DHS Enterprise Pharmacy Information System (RXIS). Since that time, DHS has made significant progress in developing the agreement. Working drafts of the system requirements, statement of work, agreement body, and maintenance agreement have been developed and DHS and GE are continuing to clarify the project scope. County Counsel, with assistance from outside counsel, is in regular contact with GE's counsel and has commenced negotiation of the contract terms.

Urgent Need – Harbor-UCLA and Olive View Medical Centers

The QuadraMed Sigma Pharmacy systems at Harbor-UCLA and Olive View-UCLA Medical Centers are no longer supported by QuadraMed and are running on long-obsolete hardware. These systems are being maintained by a third party. Many of the service parts such as disk drives, power supplies, and memory are no longer manufactured. As parts fail, they are being replaced with used parts. These facilities are experiencing significant downtime with their current pharmacy information systems, and they are without means to obtain consistent and reliable system back-ups. There is a significant need to immediately move forward with a new automated pharmacy system for Harbor and Olive View to ensure proper medication management operations.

Navigant Recommendation – King Drew Medical Center (KDMC)

In its assessment of technology planning for KDMC, Navigant observed that the DHS technology direction is sound, but, in its assessment, the implementation timeline is too protracted. Navigant has recommended accelerating the acquisition of a new pharmacy information system for MLK/Drew.

Enterprise System Approach

The RXIS project concept is a single unified system to support all DHS Pharmacies. DHS will install a single GE Centricity Pharmacy system, shared by all facilities. However, such an implementation requires critical infrastructure which to date is not in place, including a common patient identifier across Affinity systems, enterprise data centers with 24/7 support and operations staffing, and an enterprise DHS Pharmacy organization.

Under this approach, the project would begin with analysis, planning, and building of the Enterprise System, followed by implementation at Harbor, Olive View Medical Center, and KDMC. Assuming the necessary infrastructure is put in place, these first three facilities would be live approximately 24 months after contract signing.

Facility-Based Implementation Followed by Enterprise Migration

With the necessary infrastructure for a true enterprise system lacking, the fastest and surest way to achieve fully functional systems where they are most urgently needed – Harbor, Olive View, and KDMC – is to install a separate GE Centricity Pharmacy information system at each. Under this approach, DHS will negotiate a contract with GE for these three systems. Limiting the initial contract scope to Harbor, Olive View, and MLK/Drew will speed contract negotiation and start the implementation sooner.

To ensure rapid success, DHS will follow GE's proven implementation methodology. A central project team will collaborate with facility-based teams to coordinate implementation activities and decisions. To the extent that enterprise-level system standards can be achieved without impacting the speed of implementation, the project teams will standardize the configuration of the systems. However, in the interest of patient safety, the focus will be on rapid implementation in order to provide these facilities with a reliable modern pharmacy information system as soon as possible.

Under this facility-based implementation, DHS will defer detailed planning for a true enterprise system until implementation at Harbor, Olive View, and KDMC are well underway. DHS plans to amend the initial contract with GE at a later date to add the additional DHS facilities and migrate to a true enterprise system. A contract amendment will be negotiated as the original contract scope of three facilities nears completion.

This accelerated deployment is expected result in delivery of a system for Harbor, Olive View, and MLK/Drew about one year from the date of contract signing. Implementation at LAC+USC is estimated to be approximately 21 months after contract signing. Please see the Attachment for the estimated project schedule under this approach.

Conclusion

A unified enterprise pharmacy information system remains our goal. DHS must focus on our immediate patient safety and system reliability needs first. Our intention is to negotiate with GE and submit for your approval a contract for procurement and implementation of separate GE Centricity Pharmacy information systems at Coastal Cluster (Harbor-UCLA), ValleyCare (Olive View-UCLA), and Southwest Cluster (KDMC). One or more contract amendments will follow for the additional DHS facilities and true enterprise functionality.

The department intends to proceed with the assistance of County Counsel and outside counsel, to negotiate a contract in accordance with the facility-based implementation plan described above. When negotiations are completed, the contract will be submitted to your Board for approval.

TLG:jg

Attachments

c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors

NOTED AND APPROVED:

Jon W. Fullinwider
County Chief Information Officer

7/12/2005
Date

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March 12, 2004

TO: Each Supervisor

FROM: Thomas L. Garthwaite, M.D.
Director and Chief Medical Officer

SUBJECT: **NOTICE OF INTENT TO ENTER INTO NEGOTIATIONS FOR AN ENTERPRISE PHARMACY INFORMATION SYSTEM (RXIS)**

This is to notify your Board that the Department of Health Services (DHS) intends to enter into contract negotiations for the acquisition of an Enterprise Pharmacy Information System (RXIS) for the Department of Health Services (DHS).

BACKGROUND

As you know, DHS is restructuring the way it delivers healthcare services and migrating from stand-alone facilities to an integrated County network for health services delivery. Information about patients must seamlessly flow across geographic regions and the many facilities and organizations that comprise the County health care safety net, including hospitals, comprehensive health centers and public health clinics. It is the intent of DHS to replace disparate information systems at DHS facilities with integrated systems applied consistently across the Department. These integrated information technology products allow DHS facilities to capture, store, organize, share and use information to improve service delivery and assist in tracking overall patient care quality indicators and costs.

DHS currently has two legacy pharmacy information systems, QuadraMed's discontinued Sigma Pharmacy System and a County Internal Services Department (ISD) developed system known as the Pharmacy Stock Control and Audit System (PSCAS). These systems are facility based and have limited ability to utilize industry standard interfaces.

QuadraMed Sigma Pharmacy System

The software maintenance contract with a third party vendor for the Sigma Pharmacy System expires in June 2005. This contract provides custom modifications for system enhancements and regulatory compliance. Current hardware maintenance for the Sigma Pharmacy servers expires December 2005. This obsolete hardware presents increased risk of failure compared to modern hardware. The Sigma Pharmacy System cannot run on any other hardware without an expensive conversion, and, at best, that would provide a temporary solution. Full implementation of RXIS may not be complete prior to expiration of current contracts. DHS recognizes the need to find a mechanism to ensure ongoing support and maintenance until the Sigma Pharmacy System is replaced.

Pharmacy Stock Control and Audit System (PSCAS)

DHS contracts with the ISD for software services and hardware support for the PSCAS product which was internally developed for DHS in 1988. PSCAS' obsolete underlying technology and architecture limit its functionality and ability to cost-effectively meet DHS requirements. It has reached the logical end of its life cycle.

Replacing these two systems with a single enterprise-wide system will allow DHS to share pharmacy information across County DHS facilities and track overall medication use for specific patients and disease states. The new system will provide improved online support for clinical decision-making as well as aid in the management of pharmaceutical use throughout DHS.

Senate Bill 1875, which was signed into law on September 28, 2000, amended State Health and Safety Code 1339.63 to require specified health facilities to implement a plan for the elimination or reduction of medication-related errors by January 1, 2005. DHS hospital implementation plans submitted to the State in January 2002, committed to replacement of the current pharmacy systems as one of the vehicles to maintain compliance with the State Health and Safety Code. An increasing number of regulatory initiatives in recent years have mandated numerous patient safety standards that DHS facilities will be required to meet in order to maintain accredited status. Both current systems are rigid in architecture and are difficult to adapt to these new regulatory requirements and our changing business needs.

This will be the second core enterprise-wide clinical information system acquired by DHS to serve as an essential building block to establishing an electronic medical record. It will also contribute to an integrated administrative and clinical patient

database referred to in our Department's Redesign Plan presented to your Board in June 2002. This system will provide the necessary information to support current DHS pharmacy operational needs as well as provide tools to enhance patient safety, operational efficiency, and service quality.

IMPLEMENTATION OF COUNTY STRATEGIC PLAN GOALS

Entering negotiations to obtain a replacement pharmacy information system is consistent with and contributes to County Strategic Plan Goals No. 1, Service Excellence; No. 2, Workforce Excellence; No. 3, Organizational Effectiveness; No. 4, Fiscal Responsibility; No. 5, Children and Families' Well-Being; No. 6, Community Services and No. 7, Health and Mental Health.

FISCAL IMPACT/FINANCING

DHS will enter into contract negotiations based on the proposal submitted by the selected preferred vendor. The estimated contract sum prior to negotiations for FY 2004/2005 through FY 2009/2010 is $16.3M of which $11.5M is for the one time purchase of core product software, system tools, hardware and installation services. The remaining $4.8M is for hardware and software maintenance services which will include annual updates. DHS estimates that up to an additional $1.2M outside of the prime vendor contract may be needed for peripheral devices such as personal computers, printers, and barcode readers.

The figures above do not include the cost of DHS and Internal Services Department staff who will be working on the implementation of the RXIS.

Project expenditure projections will be refined in the course of contract negotiations. This project has been identified in the FY 2002-2003, FY 2003-2004 and FY 2004-2005 DHS Business Automation Plan submitted to the County Chief Information Officer.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

In accordance with your Board's policy, County Counsel has engaged outside counsel to assist with contract development. Their involvement will continue through contract negotiations, approval by your Board, and any necessary follow up if issues arise during the term.

IMPACT ON CURRENT SERVICES

DHS must transition from a collection of quasi-independent facilities to an integrated health services delivery system. Both of the existing pharmacy information systems were built

around the individual facility silo model. A replacement pharmacy information system built from the ground up on the assumption of an enterprise implementation model is an operational necessity for DHS and a prerequisite for the eventual implementation of an electronic health record (EHR) across DHS. EHR is the long-term goal; an enterprise pharmacy information system to replace DHS' two obsolete systems is simply one step on that path.

SELECTION PROCESS

The selection process is described on Attachment A.

Upon completing negotiations, DHS will submit a recommended contract for an Enterprise Pharmacy Information System to your Board for approval.

If you have any questions, please contact my office or call the Project Executive Sponsor, Jeffrey Guterman, M.D., M.S., at (213) 240-8103.

TLG:dn

c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors
County Chief Information Officer

NOTED AND APPROVED:

Jon W. Fullinwider
County Chief Information Officer

03/15/2004
Date

ATTACHMENT A: SELECTION PROCESS

COMPREHENSIVE REVIEW OF VENDOR MARKET PLACE; IDENTIFICATION OF TOP FIVE

In June 2000, DHS organized a Task Force, composed of DHS Pharmacy Directors, information systems staff, quality improvement staff, and medical staff to develop clinical and business requirements and perform an open competitive evaluation of pharmacy system products available in the market place. With consultation services obtained through Gartner, KLAS, and Kurt Salmon Associates, this Task Force researched the market place and identified thirteen (13) vendors with pharmacy information system products that could possibly meet DHS functional requirements. Based on available market data, eight (8) vendors were quickly eliminated from consideration because of their inability to support the majority of DHS requirements, most notably the ability to support an enterprise-wide implementation, both inpatient and outpatient functionality, information integration at the patient level, and the ability to function in high volume settings. With continued assistance from Kurt Salmon Associates, DHS proceeded through an objective evaluation process that provided an increasingly detailed and specific picture of the suitability of the remaining five (5) vendor products under consideration.

FROM FIVE TO THREE

The remaining five (5) vendors were invited to demonstrate functionality of their pharmacy information system product using detailed Pharmacy Task Force-developed patient scenarios to test critical inpatient and outpatient functionality. Project Task Force Members scored product functionality and ease of use for every test demonstrated. Tests not demonstrated received a score of zero. Two vendors were unable to demonstrate outpatient functionality, and consequently received the lowest scores and were eliminated, leaving three (3) for further consideration.

FROM THREE TO TWO

The Project Task Force issued a comprehensive information request in order to further differentiate the remaining three (3) vendors and assess their capabilities. Vendors responded with information on their business history, corporate composition, appropriate comparable client reference sites, range of products offered and key areas of functionality addressed. Vendor responses were evaluated on quality, completeness, and fit with the DHS patient-care and technology environment using pre-established scoring criteria. Analysis of responses provided sufficient information to eliminate one (1) of the remaining vendors leaving two (2) for further consideration.

FROM TWO TO ONE

References submitted by the two (2) remaining vendors were verified, evaluated and scored. Project Task Force Members made site visits where their observations were recorded and scored. The preferred vendor received the highest score for both reference calls and site visits.

The two (2) remaining vendors provided detailed responses on the availability of each desired system function. Results were weighted and calculated as a percentage of total possible score for each vendor. The preferred vendor scored 90 percent of the possible points while the second place vendor scored 57 percent.

Finally, the remaining two (2) vendors each participated in two follow-up demonstrations. The first was designed to answer questions and address concerns from the information request response, functional requirements response, reference calls, site visits and other data-gathering activities. The second demonstration was clinically challenging. It focused on provider decision support capabilities. The preferred vendor received the highest score in both instances.

Below are the major differentiating capabilities of the preferred vendor's system:

- An integrated inpatient and outpatient pharmacy information system with fully developed functionality.
- A mature outpatient component that has been extensively implemented in the marketplace and was in production in large outpatient prescription volume academic medical centers.
- Ability to assess a patient's medication use throughout DHS, including identifying potential drug interactions, cumulative lifetime dosing of chemotherapeutic agents, and duplicate therapies for each patient across multiple facilities.
- The ability to store both an enterprise-wide patient identifier and six alternate patient identifiers, one for each cluster.
- A pharmacy inventory system that will maintain perpetual inventory of medications stocked by each pharmacy and interface with handheld devices for inventory control.
- Ability to support multiple-facility inventory tracking and control as well as tracking the transfer of medication intra and inter facility.
- Ability to track drug recalls enterprise wide by drug manufacturer and lot number and allow the use of bar code technology for inventory control.

CONFIRMATION OF PREFERRED VENDOR SELECTION

In December 2003 an updated evaluation was conducted with the preferred vendor to assure that new regulatory requirements could be met with their product. Their compliance with new regulations was confirmed. In February 2004, the previously eliminated vendors were reviewed and it was determined that they still lacked critical functionality. Information from Gartner, KLAS, and Kurt Salmon Associates, and observations by DHS representatives at professional meetings and trade shows leads to the conclusion that the pharmacy information system market for large implementations has not changed significantly since DHS performed its evaluation and identified a preferred vendor.

RXIS Contract Approach Backgrounder

June 23, 2005

Q&A

1. How does this impact the new LAC+USC hospital?

Simplifying the initial contract, including limiting to three facilities and deferring the unified enterprise database will get the system for LAC+USC done sooner by approximately one year.

We increase the our prospects for successfully and quickly negotiating the contract scope, deliverables, and costs with GE.

We defer a significant amount of enterprise configuration work until after LAC+USC is live.

With contract signing this calendar year, LAC+USC is estimated to be live by October 2007.

Under the enterprise-first approach, assuming the contract negotiation took three months longer, LAC+USC would be live by January 2009.

2. Obvious question: Why didn't we do it this way in the first place?

We aimed high for enterprise functionality. As we assessed progress on U^2PI, DHS Enterprise Pharmacy organization, Enterprise data centers and 24/7 operational support, it became clear that we do not have the underlying infrastructure in place yet for a true enterprise pharmacy system.

As we negotiated the SOW with GE, it became clear that under the full enterprise configuration, it would take an unacceptable amount of time both to negotiate all the details of the agreement and to implement the enterprise configuration. Given the increasingly urgent situation at Harbor and Olive View and the strong impetus to provide a new system for KDMC, we need to move faster.

3. Would this approach compromise anything? Cost, efficiency, safety?

COST:
Unknowable, but estimated to be cost neutral. Initial outlay for servers will be smaller. We will defer procurement of enterprise hardware and licenses until these can be put to good use. Hardware costs for this "big iron" will likely come down. Servers deployed in the initial configuration can be redeployed within the enterprise solution or used for other purposes.

EFFICIENCY:
Probably 80% of the efficiency gains in Pharmacy workflow will be achieved by with the facility based install. Each cluster will get onto Centricity Pharmacy sooner than they would if we were to start with a single enterprise database implementation. The 20% or so of the efficiency gains to be achieved with a unified enterprise database will be take longer.

SAFETY:
Safety gains will be accelerated. The most important safety gains will be achieved with the facility-based installs.

QUALITY OF IMPLEMENTATION:
We'll learn a lot in the initial three implementations that we can leverage at the other facilities, particularly LAC+USC.

Other issues that may come up:

Selection process (no RFP)

Our selection process included a careful review of the available commercial pharmacy information systems based on our requirements. GE Centricity is rated by independent industry research (KLAS) as a top-tier vendor.

We fully disclosed to the BOS our selection process and our intention to negotiate an agreement with GE.

Selection process and previous BOS communication was very much enterprise, enterprise, enterprise

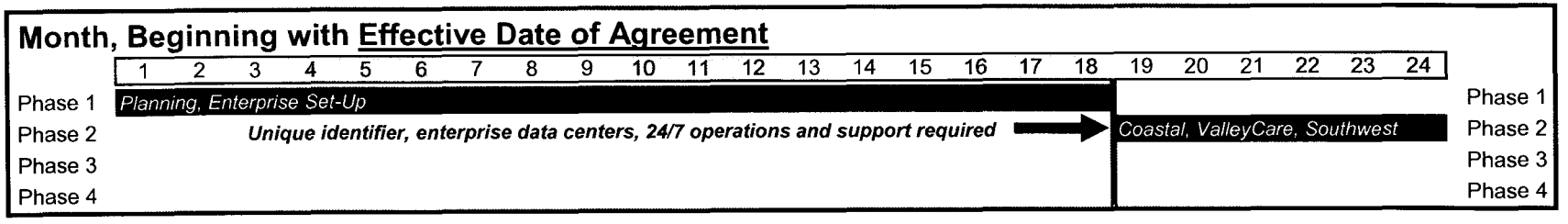
We remain committed to delivering a true enterprise system. GE Centricity Pharmacy has been determined to be our best choice in the enterprise environment, in part due to its enterprise functionality, but also due to core functionality that is achieved even in a facility-based installation. Facility-based installations of Centricity Pharmacy will provide the most efficient and cost-effective migration to a unified enterprise database when DHS is ready.

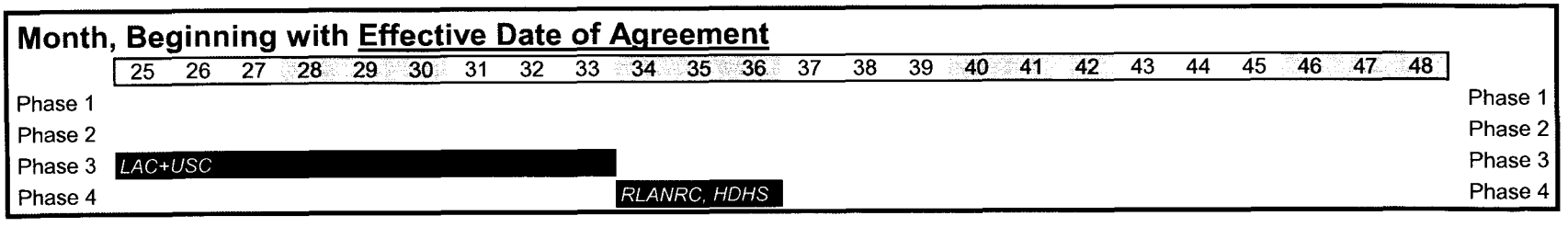
The GE system is considered to be top-tier whether or not true enterprise functionality is required. It will meet out most pressing needs very well.

U^2PI is behind schedule

We have begun. This project is actively moving forward with the MPI Clean-Up Project Design activites.

RXIS - Estimated Schedule: Enterprise Approach

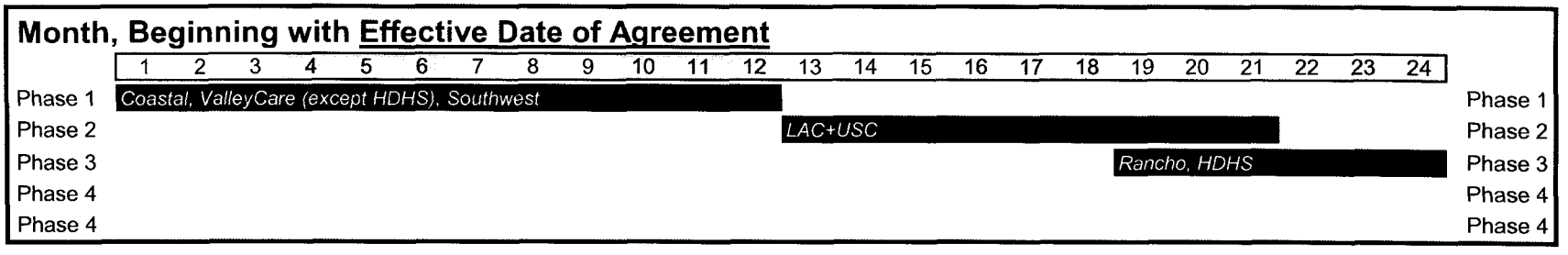


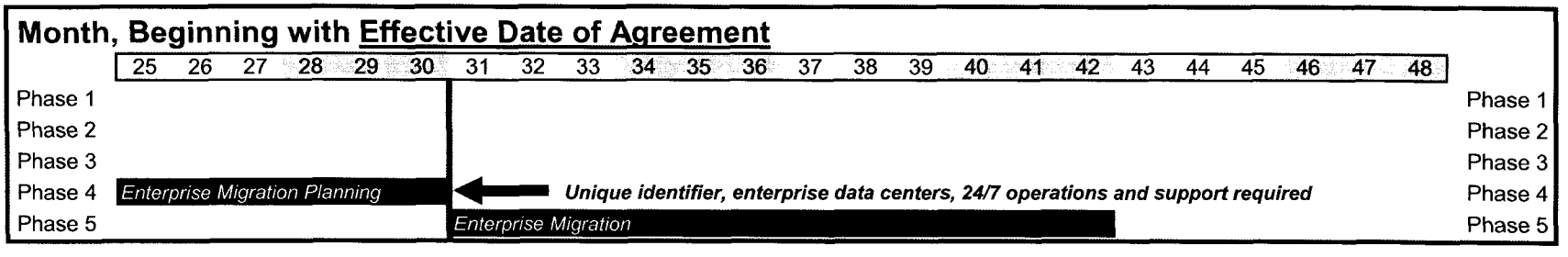


Legend

Phase 1	Planning and Analysis, Enterprise Design, Enterprise Master System
Phase 2	Coastal, ValleyCare (except High Desert), Southwest
Phase 3	LAC+USC
Phase 4	Rancho, High Desert

RXIS - Estimated Schedule





Legend

Phase 1	Coastal, ValleyCare (except HDHS), Southwest (initial contract)
Phase 2	LAC+USC (contract amendment required)
Phase 3	Rancho, High Desert
Phase 4	Enterprise Migration Planning
Phase 5	Enterprise Migration to a single shared system